

G : FOOD TECHNOLOGY**Q. 1 – Q. 9 carry one mark each.**

- Q.1 Standard pasteurization protocol for milk is adequate for destroying
(A) *Clostridium sporogenes* (B) *Bacillus cereus*
(C) *Clostridium botulinum* (D) *Listeria monocytogenes*
- Q.2 Which one of the following is NOT a component of an evaporator?
(A) Heat exchanger (B) Vacuum separator
(C) Condenser (D) Cyclone separator
- Q.3 Among the following animal foods, the fat content is least in
(A) Beef (B) Chicken meat (C) Pork (D) Lamb flesh
- Q.4 The enzyme that hydrolyzes starch to maltose is
(A) α -amylase (B) β -amylase
(C) glucoamylase (D) cyclodextrin glucanotransferase
- Q.5 Which one of the following is NOT enriched in endosperm during parboiling of paddy?
(A) Thiamine (B) Niacin (C) Iron (D) Fat
- Q.6 Heat-treated legume seed proteins are more digestible than those of untreated legume seed proteins due to
(A) reaction of reducing sugars with ϵ -amino group of lysine
(B) increased binding of lectins to intestinal mucosal cells
(C) thermolabile nature of lectins and Kunitz-type protease inhibitors
(D) thermolabile nature of Bowman-Birk type of inhibitor
- Q.7 What is the percent relative humidity at which both the dry bulb and wet bulb thermometers would record equal temperatures?
(A) 0 (B) 10 (C) 50 (D) 100
- Q.8 How many fold would the g -number of a centrifuge increase by doubling both the spinning speed and bowl diameter?
(A) 2 (B) 4 (C) 8 (D) 16
- Q.9 The gradual decrease in viscosity of tomato paste during storage can be prevented by quickly heating it to 82 °C, because
(A) water soluble pectin interacts with calcium
(B) hemicellulose prevents decrease in viscosity
(C) lignin prevents decrease in viscosity
(D) pectin methyl esterase is inactivated

Q. 10 – Q. 22 carry two marks each.

Q.10 Match the enzyme in **Group I** with its corresponding application in **Group II**

Group I

- (P) Chymosin
(Q) Sulfhydryl oxidase
(R) β -Galactosidase
(S) Microbial proteases

Group II

- (1) Removal of cooked flavor from milk
(2) Soybean milk coagulation
(3) For rennet puddings
(4) Lactose removal

- (A) P-3, Q-2, R-1, S-4
(C) P-1, Q-3, R-4, S-2

- (B) P-3, Q-1, R-4, S-2
(C) P-4, Q-3, R-2, S-1

Q.11 Milk is flowing at $0.12 \text{ m}^3/\text{min}$ in a 2.5 cm diameter pipe. The temperature of the milk is $21 \text{ }^\circ\text{C}$ and the corresponding viscosity and density are $2.1 \times 10^{-3} \text{ Pas}$ and 1029 kg/m^3 , respectively. If the flow is found to be turbulent under the given conditions, the Reynolds number is _____

Q.12 Whole milk (34,950 kg) containing 4% fat is to be separated in 6 h period into skim milk with 0.45% fat and cream with 45% fat. The flow rate of cream stream (kg/h) from the separator is _____

Q.13 Match the edible plant tissue in **Group I** with the type of carotenoid given in **Group II**

Group I

- (P) Corn
(Q) Red pepper
(R) Pumpkin
(S) Tomato

Group II

- (1) Lycopene
(2) β -Carotene
(3) Capsanthin
(4) Lutein

- (A) P-3, Q-4, R-2, S-1
(C) P-4, Q-3, R-2, S-1

- (B) P-2, Q-1, R-3, S-4
(D) P-1, Q-2, R-4, S-3

Q.14 Undesirable bitterness frequently encountered in cured cheese is due to the

- (A) presence of naringin
(B) formation of limonin
(C) overall hydrophobicity of amino acid side-chains in peptide
(D) conversion of humulone to isohumulone

Q.15 Green tea is considered to be a more healthy option than black tea because it

- (A) has high content of polyphenols
(B) is richer in thearubigin
(C) does not require any sweetener during tea preparation
(D) has no microbial load

